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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,816	05/27/2005	Eugene Murphy O'Donnell	PU020470	6644

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JOSEPH J. LAKS, VICE PRESIDENT
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PATENT OPERATIONS
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EXAMINER

NGUYEN, LAUREN

ART UNIT	PAPER NUMBER
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2871

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/536,816	Applicant(s) O'DONNELL ET AL.	
	Examiner Lauren Nguyen	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/27/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-14 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>05/27/2005</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
|---|--|

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted was filed on the mailing date of the instant application on 05/27/2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

2. The disclosure is objected to because of the following informalities: On page 8, line 4, 'The p-polarized component 27' should be corrected to --The p-polarized component 45--. Appropriate correction is required.

Claim Objections

3. **Claim 8** is objected to because of the following informalities: On page 4, line 12; the term "separating the first and second light matrices" is unclear and not supported by the specification. For examining purposes, it should be corrected to "combining the first and second light matrices". Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-3 and 5-7** are rejected under 35 U.S.C. 102(b) as being anticipated by **Brennesholtz (U.S. Patent Number 6,280,034)**.

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6. With respect to **claim 1**, as shown in figures 1-7, **Brennesholtz** discloses a light valve system, comprising:

- a color selection device (82, figure 7) configured to temporally attenuate component color bands of light to correspond with a video input signal;
- a first polarizing beam splitter (PBS #1) configured to polarize the component color bands into at least two polarized components; and
- a microdisplay (LCD #1 or LCD #2) configured to receive at least one of the at least two polarized components for forming a projected light matrix.

7. With respect to **claim 2**, as applied to **claim 1** above and shown in figures 1-7, **Brennesholtz** discloses the color selection device attenuates component color bands of light using a voltage level input (figures 1-2, see at least column 5, lines 41-45).

8. With respect to **claim 3**, as applied to **claim 1** above and shown in figures 1-7, **Brennesholtz** discloses the color selection device is a color switching device including a plurality of stacked liquid crystal displays (figure 2, see at least column 6, lines 26-32).

9. With respect to **claims 5-7**, as applied to **claim 1** above and shown in figures 1-7, **Brennesholtz** discloses an integrator (included in the white light source 81), a polarizer (see at least column 6, lines 42-51), projection lenses (90) and a display screen (see at least column 9, lines 26-30).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Brennesholtz (U.S. Patent Number 6,280,034)** in view of **Robinson et al. (U.S. Patent Number 6,650,377)**.

12. With respect to **claim 4**, **Brennesholtz** discloses the limitations as shown in the rejection of **claim 1** above. **Brennesholtz** does not disclose the microdisplay is a liquid crystal on silicon imager.

However, **Robinson et al.**, in at least column 1, lines 31-36, discloses the microdisplay is a liquid crystal on silicon imager.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the microdisplay of **Brennesholtz** with the teaching of **Robinson et al.** because such modification would provide small, lightweight, and inexpensive microdisplays to light valve systems.

Allowable Subject Matter

13. **Claim 8** is allowed.

14. The following is an examiner's statement of reasons for allowance:

The specific limitations of "*a microdisplay configured to receive at least one of the second set of oppositely polarized components for forming a projected light matrix*" in the combination as claimed in **claim 8** are not provided nor made obvious by the prior art of record. **Claim 8** would therefore be allowed. Being depending on **claim 8**, **claims 9-14** would also be allowable.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **Dove et al. (U.S. Patent Number 6,082,861)** discloses a high contrast projection

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display. Shiue et al. (U.S. Patent Number 6,402,323) discloses a reflective type liquid crystal projection system.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Nguyen whose telephone number is (571) 270-1428. The examiner can normally be reached on M-F, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lauren Nguyen

February 16, 2007


ANDREW SCHECHTER
PRIMARY EXAMINER